

REMARKS

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.112, and in light of the remarks which follow are respectfully requested.

The Abstract has been revised in response to the criticism raised in paragraph (1) of the Office Action. Accordingly, the objection thereto has been obviated.

The objections to claims 1, 17, 20 and 21 as set forth in paragraphs (2), (3) and (4) of the Office Action have been obviated by the present amendment.

The Examiner's early indication of allowable subject matter in paragraph (5) of the Office Action is acknowledged with appreciation.

Claims 1-10 and 14-27 stand rejected under 35 U.S.C. §102(b) as anticipated by Kildemo et al for the reasons provided in paragraph (7) of the Office Action. Reconsideration of this rejection is respectfully requested for at least the following reasons.

The method proposed in the article by Kildemo et al was acknowledged and the deficiencies thereof discussed at length in the present specification beginning on page 4, line 19 to page 5, line 2. The method described in the cited article by Kildemo et al for the real-time control of the growth of silicon alloy multilayers is based on ellipsometry measurements of the coefficients I_s and I_c , which are trigonometric functions of the angles ψ and δ . For this purpose, one first builds a theoretical curve in the plane $[I_s, I_c]$ that is theoretically followed by the system of

layers during its elaboration. This gives rise to the typical trajectories as shown in Figure 4 on page 49 of the cited article and as in Figure 2 of the present application. After this is completed, and in order to control the elaboration of the multilayer sandwich, the experimental trajectory is recorded and compared with the theoretical one. The key point is that in the method of Kildemo et al, the criteria used to decide the termination of layer n to start layer n+1 is to minimize the distance between the experimental point and the theoretical point corresponding to the end of each sublayer.

To the contrary, this criteria is not employed in the presently claimed method. What Applicants measure is the length of the trajectory traveled in the plane of the variables [Is,Ic]. The growth of a given layer n is considered to be terminated when the length of the experimental trajectory is equal to the theoretical one.

Based on the above distinctions, Applicants submit that the §102(b) rejection is unsound and should be withdrawn.

Claims 12, 30 and 31 have been rejected under 35 U.S.C. §103(a) as unpatentable over Kildemo et al in view of U.S. Published Application No. 2000/0024668 to Stehle et al for the reasons given in paragraph (9) of the Office Action. Reconsideration of this rejection is requested for at least the following reasons.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art,

to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The motivation to modify the prior art references must flow from some teaching in the art that suggests the desirability or incentive to make the modifications needed to arrive at the claimed invention. In re Napier, 55 F.2d 610, 613; 34 U.S.P.Q. 2d 1782, 1784 (Fed. Cir. 1995).

Aside from Applicants' own specification, there is no disclosure or suggestion in either reference which would motivate those of ordinary skill in the this art to modify the method described in Kildemo et al in accordance with the teachings of Stehle et al. Even if such a suggestion existed, there is no reasonable expectation of success. Finally, the combined disclosures of the cited documents do not teach or suggest all the limitations of the present claims. Thus, the disclosure of the secondary art does not supply the aforementioned deficiencies in the method disclosed by Kildemo et al.

For at least the above reasons, the §103(a) rejection should be withdrawn. Such action is earnestly requested.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (703) 838-6683 at his earliest convenience.

Respectfully submitted,

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Date: June 13, 2003

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